THE RICHEBÄCHER LETTER

Monthly Analysis of Currencies and Credit Markets

NUMBER 411 **DECEMBER 2008**

Looking at the bigger picture, America has embarked on one of the great experiments in the history of monetary economics. We are testing the notion that the size of a central bank's balance sheet matters more to the economy than an overnight interest rate that the balance sheet produces in money markets. The hope is that this experiment will stabilize asset prices, reduce credit spreads and boost the economy.

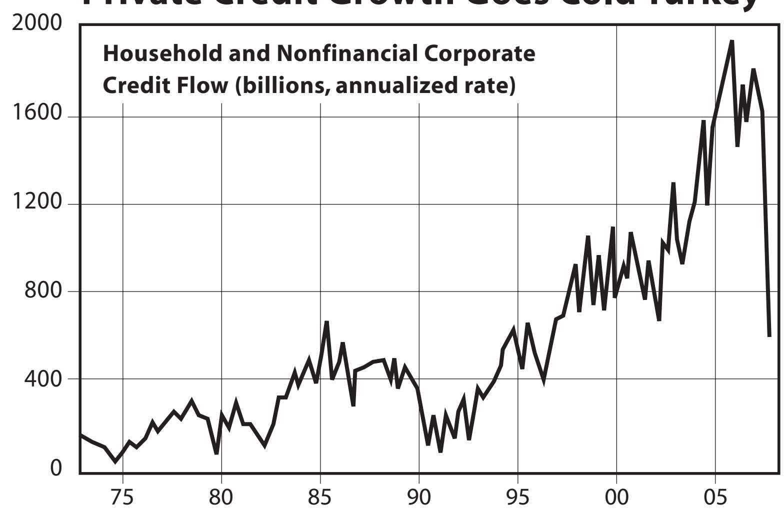
— Vince Reinhart, "The Fed's Big Experiment,"
***The American*, Nov. 3, 2008**

CREDIT COLD TURKEY

By the middle of this year, credit flows to the U.S. household and nonfinancial corporate business sector had already become remarkably constricted. Private sector borrowers were accessing less than a quarter of the credit available earlier in the expansion. This can only be regarded as a very severe shock to the U.S. economic and financial system, and given what we know about events in the third quarter, the credit tourniquet undoubtedly tightened further. By comparison, the collapse in net credit issuance dwarfs that seen in the 1989–91 period, when the S&L crisis erupted and the Resolution Trust Corp. was called in to mop up the damage.

From Dr. Kurt Richebächer's perspective, this deleveraging was always a necessary and inevitable stage, and his writings from 2006 suggest he understood very clearly that the housing bust would eventually provoke the necessary deleveraging. The precise day the deleveraging process would take hold was not so obvious, nor was the pace of the unraveling. Given the events since midyear, it is conceivable the United States will witness an outright contraction of private credit flows before the year is through. Credit slowdowns are typical of postwar recessions, but evidence of a private credit contraction — that is, outright declines in the level of private credit outstanding — requires reaching back to World War II and the Great Depression.

Private Credit Growth Goes Cold Turkey



Source: Haver Analytics

From an Austrian School perspective, real economic growth is always a function of real saving. Real saving, in turn, is understood as plant and equipment added to the tangible capital stock, additions to raw material inventories available for production and the capacity and working capital required to support additions to the work force. Real saving, in other words, is for the most part real investment. Without the real resources to expand production, growth cannot proceed. The logic is simple and straightforward.

Oddly enough, J.M. Keynes in the original — not necessarily the Keynesians that followed — shared this view of investment-led growth. The much vaunted multiplier effects were understood to be a passive, although not always stable, result of investment spending in the economy. Consumption increases rippled out from the injection of investment expenditures in Keynes' model, and entrepreneurs and bankers held the key to growth by initiating

production. Given household saving preferences, growth occurs only when sufficient investment is encouraged. That, in turn, requires adequate expectations of business profitability and sufficiently low borrowing rates.

However, Keynes unquestionably differed from the Austrian School when it came to situations in which the incentives for private investment were not sufficient to match the desire of the private sector to save. Here, he first advocated attempts by the central bank to suppress interest rates, thereby lowering the cost of capital to firms. From a portfolio balance point of view, this also had the advantage of lowering the competing return on fixed-income instruments relative to investments in tangible capital equipment and structures. Where central bank manipulation of interest rates failed, Keynes advocated public investment initiatives to fill the gap, and he often clashed with contemporaries like James Meade over measures to boost consumption without first exhausting public investment opportunities.

Austrian adherents ardently rejected Keynes' solution, even though they shared his view of investment-led growth and the importance of credit cycles. Any banking system that could create credit out of thin air, without regard to the real saving available in the economy, would surely lead to misallocations of credit and the warping of relative price signals to producers and consumers. Such misallocation would only lead to distortions in the productivity capacity of the economy, which merely spelled trouble down the road. Attempts to manipulate interest rates were similarly rejected by the Austrians, as such measures merely distorted the pricing mechanism that, according to their view, revealed household preferences for consuming goods and services over time.

In this analytical framework, the best way to deal with an economy in which credit growth has been allowed to exceed real saving preferences, and where the structure of the economy's productive capacity has been skewed by easy credit, is to let it all fall down, preferably in one fell swoop. The $27 trillion in financial wealth wiped out around the globe over the past year would perhaps be considered a good start, from a purely Austrian perspective.

From a strictly Austrian viewpoint, bad debt and inflated assets should be liquidated as quickly as possible until the true level of real saving is achieved. Firms with excess capacity in certain industries, like finance, home building or consumer discretionary areas, should be allowed to enter bankruptcy, and the productive resources they used should be released to their next most valuable use.

As painful as such a process may be, the Austrian School view suggests it is better to get the economy back on a sound footing than to let such excess endure and accumulate over time. Avoiding the transition away from a credit-based system to a real saving-based one only ensured a more destructive day of reckoning would arrive in the future, and this is one of the aspects of policy intervention that Austrian economists like Friedrich Hayek and Ludwig von Mises found most alarming. The longer the adjustment from a credit-inflated to a real saving-based economy was put off, the more havoc the eventual adjustment process would wreak on the economy. Dr. Richebächer concurred, though he was aware that politically, the pressure to use policy stimulus to cushion the blow would tend to prevent

THE RICHEBÄCHER LETTER

In Memory of Dr. Kurt Richebächer

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or forestall any full-scale resolution.

> ***Just as it is said there are no atheists in foxholes, so too is it difficult to find libertarians during a financial crisis.***

The contraction in credit growth to date, however, is not the result of the key actors in the financial system seeing the world suddenly through an Austrian School lens and abiding by its prescription. The volume of new credit issuance, after all, was the source of fee-generating income in the financial system.

Rather, the credit contraction has been born of the self-interest of financial institutions and investors trying to preserve capital in a period of surging loan delinquencies and decaying private income growth. In fact, the attempt by individual hedge funds, banks, insurance companies, households and nonfinancial firms to deleverage their balance sheets all at the same time has threatened to bring global economic activity to its knees. A stark recession is sweeping through the United States, the eurozone, Eastern Europe and many Asian nations as well. Even China may be caught in the maelstrom. As Dr. Richebächer's analysis always suggested, allowing real production imbalances and financial imbalances to build up over time has simply ensured widespread disruption as they are reversed.

The problem with just letting it all fall down is that financial meltdowns have a funny way of undermining societies and nations. Policymakers, having taken the mounting episode of financial instability as an unacceptable systemic threat, are throwing everything they have at slowing or reversing the private sector deleveraging process under way. The new motto is WIT — whatever it takes. Alex Pollock at the American Enterprise Institute states the following "empirical law":

> *If you would like an empirical law of government behavior, it is in that in a panic or threatened financial collapse, governments intervene — every government, every party, every country, every time.*

There is a less academic form of this law. Just as it is said there are no atheists in foxholes, so too is it difficult to find libertarians during a financial crisis. In the United States, the net result of the current policy reaction is a releveraging of the Treasury's balance sheet as a $700 billion slush fund (known as the Troubled Asset Relief Program, or TARP) for financial institutions has been slapped together, and an explosion of the Federal Reserve's balance sheet on a scale heretofore unimaginable. Europe and the U.K. appear to be following a similarly aggressive policy response.

Consequently, private-sector deleveraging attempts are provoking a public sector releveraging of a magnitude rarely seen outside of wartime. We doubt this is what Dr. Richebächer had in mind when he wrote of the inevitable deleveraging of private-sector balance sheets, but this indeed is the manner in which this adjustment process is currently being played out. It is best to try to understand the implications of this dynamic, as it is likely to present new and unintended complications in the months ahead.

In this *Richebächer Letter*, we will dig more deeply into the deleveraging process that has developed as this year has progressed. The implications of deleveraging for the real economy, and for private income flows, will be examined briefly. In a nutshell, a credit-dependent economy that goes cold turkey is not a pretty sight, and in the United States, this is manifesting in the form of one of the sharpest consumer contractions ever. More importantly, we will look into the extraordinary trajectory of policy responses, and we will try to anticipate the compounding of distortions these may introduce. The choice of releveraging public-sector balance sheets is not without its own price.

THE FED BECOMES THE MONEY MARKET

Last month, we mentioned one of the flaws in the new financial architecture was the use of short-term commercial paper issuance to fund complex and relatively illiquid structures securities like collateralized debt obligations (CDOs) or collateralized loan obligations (CLOs). Once investors in the commercial paper market caught

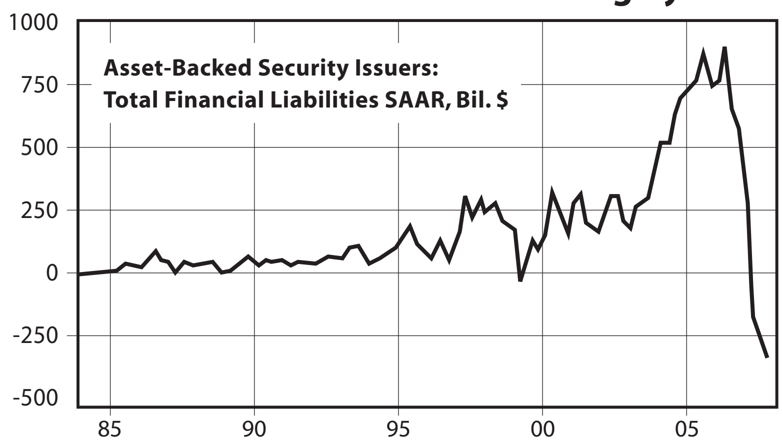
wind of the impaired values of the CDOs or CLOs their short-term investments were financing, they chose not to reinvest in the commercial paper as it matured. This effectively meant there was a run on what has been deemed the shadow banking system, which grew up around the various structured finance vehicles created in the past decade or so.

Looking through the Federal Reserve flow of funds data, we can see how important asset-backed security issuance became to the new financial architecture, and how large the liabilities issued by this sector became. The key financial liabilities of this shadow banking system were not bank deposits backed by deposit insurance. Rather, they were repurchase agreements (repos) and commercial paper that constantly needed to be refinanced.

At its peak, annualized flows of $750 billion in asset-backed commercial paper were issued to position assets in the new financial architecture. By the end of the second quarter this year, liabilities issued by asset-backed security issuers were contracting at a $250 billion rate. The eventual run on this segment of the financial system was both sharp and severe.

The inability to refinance complex, illiquid securities like CDOs and CLOs introduced two adverse consequences. Either these structured vehicles had to be dismantled in fire sale fashion or they had to be taken back on bank and insurance company balance sheets and placed in deepfreeze with the hope that time would heal all capital impairments. An unwinding of these structures and the subsequent fire sale forces asset prices down further, and the return of these assets to financial institution balance sheets places the solvency of these institutions into question, and usually requires that they raise more capital.

The Run on the Shadow Banking System



Source: Federal Reserve Board/Haver Analytics

Over the past month, in an attempt to address the resulting distress, the Fed has focused on dragging money market rates down and reviving the commercial paper market, with some success. The 3-month Libor, an interest rate important to both rate resets on adjustable-rate mortgages and to many financial derivative contracts, has been effectively dragged down from a spread wider than 350 basis points over what is essentially the Fed's policy rate to a spread closer to 150 basis points. Asset-backed and financial commercial paper issuance has picked up slightly, and asset-backed commercial paper rates have plummeted from a high near 6% following the Lehman bankruptcy to an overnight level closer to 1%.

To accomplish this feat, the Fed recently instituted the Commercial Paper Funding Facility (CPFF), which had purchased over $240 billion of commercial paper through early November. The Fed, having capped the CPFF at $1.8 trillion, could conceivably end up owning the whole commercial paper market if private investors decide to walk away from this investment vehicle. In addition, by November's end, the Fed will have launched the Money Market Investor Funding Facility. This facility is authorized to purchase up to $600 billion of highly rated CDs, bank notes and commercial paper from money market funds. In effect, the Fed is set up to reload money market funds, as it will be crediting the funds with reserves equal to the value of the purchased assets. These reserves can be used to meet redemption, but more likely, they will be used to purchase more short-term paper, thereby helping take money market rates even lower. That may be good news for the borrowers, while it leaves investors in money market funds starving for yields.

The Fed, in other words, is demonstrating that it is prepared to be a surrogate for entire channels of the credit market, especially the short-term money markets. This amounts to a partial nationalization of select credit channels. The implications of this for the Fed's balance sheet are quite striking and are considered in more depth further on in this issue.

BANKS IN THE CROSSHAIRS

As private income growth slows — and it now looks like household money income flows will be falling alongside corporate profit income flows in the fourth quarter of 2008 — banks are very aware that default and delinquency rates are likely to climb for more than just mortgages. Consumer and corporate loans are likely to sour as the recession progresses. In fact, it is not unusual for private loan default and delinquency rates to keep climbing even after a recession is over and the early part of the economic expansion is under way.

In this regard, as of the third quarter, Citicorp is already reporting credit card loss ratios above 7%, which exceeds the peak following the 1991 recession, during the period when "credit head winds" made for a lighter-than-usual recovery. At a November banking conference held by Merrill Lynch, management at Annaly Capital Management noted on their estimates that a 10% reduction in the value of consumer loans and securities would be sufficient to erase 70% of the equity in the banking system. There is, in other words, a good reason JPMorgan's Jamie Dimon added $1.3 billion to its credit reserves in Q3, topping the total in loan loss reserves for the bank to over $15 billion. Bank balance sheets are far from out of the woods, and the explicit reorientation of the TARP (discussed below) away from its initial mandate to purchase illiquid assets confirms this.

Bank management is surely aware of the likelihood of mounting losses in their loan books. Voluntary new lending by banks is consequently being restricted to the highest-quality borrowers. However, banks are also on the hook with prearranged credit lines, as nonfinancial firms find it difficult or expensive to raise funds in securities markets.

Less than half of the $2.8 trillion in revolving corporate credit lines at banks has been tapped so far. The Fed, having restricted its intervention to the highest-quality portion of the commercial paper market, has basically ensured that companies with lower-quality commercial paper will have to tap these bank credit lines. Banks will be stuck making loans they otherwise would prefer to forego to firms with riskier balance sheets as the Fed reserves the best customers in the commercial paper market for its own balance sheet. We doubt the Fed has considered this unintended consequence of the high-quality requirements of its commercial paper and money market operations.

Reports of corporate credit lines being modified or pulled entirely have spread as banks scramble to limit lending they would otherwise deny if they had not pre-committed to deliver it. When firms tap these lines, banks will have more loans on their books, and they will need to gather the required capital, unless they sell some other assets off. Firms like Genworth Financial, for example, that experience a cut in their short-term debt rating, and, therefore, are disqualified from the Fed's commercial paper facility, have little choice but to draw on such revolving credit lines while they can.

Alternatives to bank lending remain few. As of this writing, only seven junk bond deals have been completed since August, and with junk bond spreads over Treasury yields trading at 1,500 basis points (15%) — exceeding the 2002 high of 1,200 basis points — that market is likely to remain closed to new issuance. That is not to say that U.S. firms do no have some room to maneuver.

In the United States, nonfinancial corporate cash holdings as a share of GDP stand at a very high 9% level, but we understand the allocation of cash across companies is very concentrated. Corporate short-term debt as a percent of total debt also stands around 30%, near a 45-year low, so the refinancing pressures may be less onerous than they were during the 1991–93 credit head winds episode. However, S&P has noted that some $234 billion in debt refinancing for European companies is coming due in 2009, so foreign firms may find it tougher sledding unless capital markets revive soon.

In addition, we must keep in mind that banks and finance companies also

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have debt maturing that they are rightfully concerned they may not be able to roll over. Fitch Ratings finds some $89 billion of debt will mature for these companies in the fourth quarter, with another $358 billion coming up for refinancing in 2009. The reliance on wholesale funding was widespread, after all, and as banks scramble to replace this with deposit gathering, the competition for deposits drives their cost of funds higher and eats into their net interest margins.

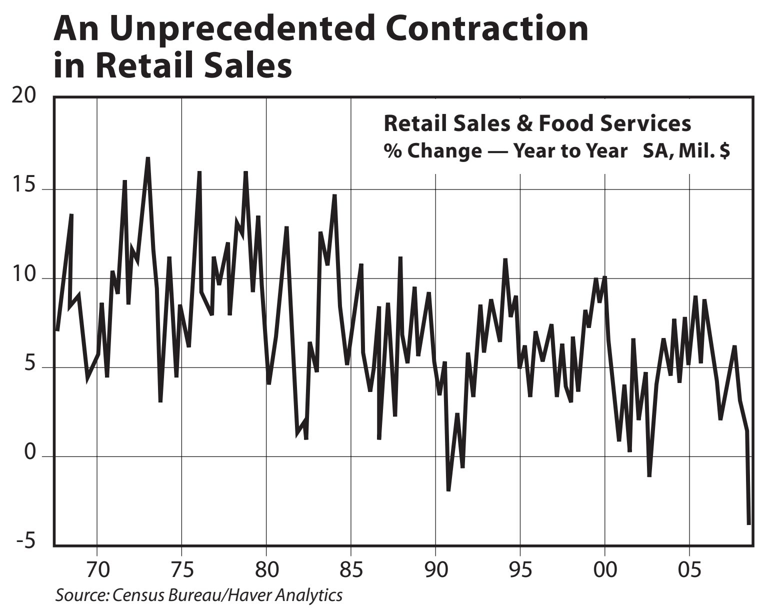
Taking the disruption of wholesale funding markets for banks; the likely losses ahead on their existing mortgage, consumer and corporate loan books; and the untapped corporate credit lines still outstanding, the challenges facing banks are immense.

THE U.S. CONSUMER CLIFF SHOT

Over time, households have tended to view realized and unrealized capital gains as reasonable substitutes for saving out of income flows. Given the damage done to household portfolios in Q3, based on historical relationships, households are likely to be targeting a personal saving rate in the 4–5% range of disposable income. At the end of the third quarter, this saving rate was closer to 1.3%. To put it mildly, households have some tough budgeting decisions in the months ahead.

The rush to frugality is already under way. Over the past four months, retail sales have posted one of their sharpest declines since the series was first collected 41 years ago. The plunge cannot be explained away by falling gas prices alone. At an annualized rate, the declines across a number of categories since July have been nothing short of astonishing:

- Autos: -36%
- Furniture: -23%
- Electronics: -18%
- Clothing: -15%
- Department stores: -15%
- Sporting goods/books/music: -13.5%
- Building materials: -7%.



The combined pressures of falling home prices, falling equity prices, rising unemployment and curtailed credit have proven overwhelming to U.S. households. A new austerity has taken hold, and given that the causes of this new austerity are unlikely to disappear, it would appear bare-bones budgeting by U.S. consumers is here to stay well into 2009.

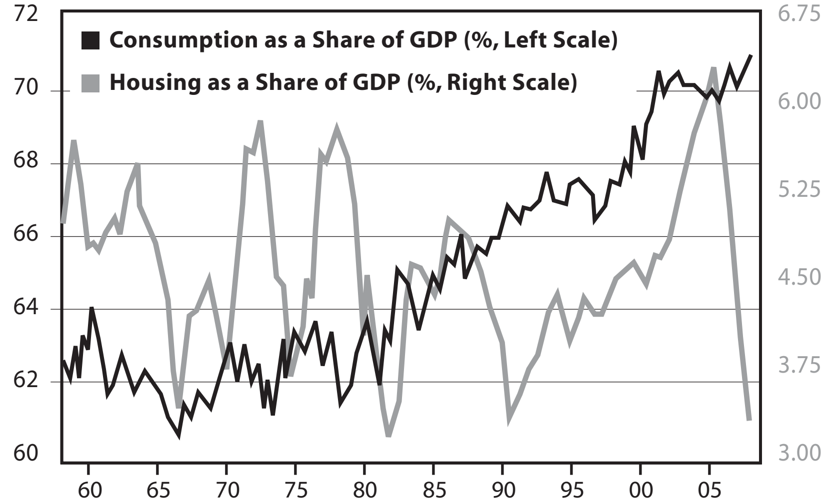
Particularly troublesome is the realization that before the advent of financial deregulation, consumer spending as a share of economic activity (GDP) varied in a fairly steady range of 61–63%. However, after the initial waves of financial deregulation in the early ’80s, the consumption share of GDP steadily rose for the next two decades, to crest just above 70% of GDP. Had prices on durable consumer goods not fallen as imports from Asia and elsewhere flooded in, no doubt the consumption share would have climbed even higher the past eight years.

The collapse of the new financial architecture, however, can be understood as reversing much of the expansion of credit that financed an ever-increasing share of consumer spending in the U.S. economy. The housing sector has already demonstrated what can happen when credit conditions erode. Housing as a share of GDP has already

reversed all the way back down to prior recession lows, as displayed in the chart at the right.

We would not care to speculate that consumer spending will reverse all the way back to its early-1980s share of GDP. The consequences of such a reversal are dire, to say the least. With the collapse in retail sales under way, however, it is conceivable that the consumption share drops back down closer to the levels that persisted in the early '90s, when credit head winds from the S&L crisis were impairing debt-fueled consumption. Needless to say, if that proves to be the case, U.S. GDP growth will require a different driver than credit-fueled, asset bubble-inspired consumer spending.

Housing Share of GDP Has Corrected, but Consumption Share Has Not



Source: Haver Analytics

U.S. consumer spending is estimated to comprise 18% of global GDP. Japan and Germany follow in rank order, but both countries tend to run trade surpluses, so the impact of slower household spending in these nations on rest-of-the-world growth is not nearly as dramatic. With U.S. retail sales plunging, and no obvious catalyst to reverse the plunge on the horizon, the implications for export-dependent economies are also rather grim, unless they are able to find substitute markets at home or in their own regions.

GLOBAL REPERCUSSIONS AND RESPONSES

The once-popular global decoupling theory has given way to an increased recognition of global recoupling in what increasingly appears to be a global recession. By October, China's growth in industrial value added had slipped to 8.2% year over year, from a peak of 19% a year ago. Electricity production in China dropped 4% year over year in October — a deeper drop than the one that followed the Asian Crisis in 1998. China was supposed to be the most resilient economy of the so-called BRICs (Brazil, Russia, India and China) that were leading the way in rapid, export-led development paths. That China has been visibly tripped up suggests the shock wave rippling out from the U.S. housing bust, through the G-7 recessions, and into the rest of the world has been as overwhelming, as Dr. Richebächer once anticipated.

Europe's economies, which have been struggling with a strong currency, the prior oil price shock and now their own financial crisis, are reported to have contracted at a 0.2% pace in the third quarter, marking the second quarter in a row of economic decline. The first recession since the introduction of the euro is straining the system, as private investors avoid Italian public debt in favor of German public debt. The ECB, which was tightening against inflation through July, has done an about-face, and is both cutting policy rates and dramatically expanding its balance sheet in an attempt to address the recession. As it stands, both Germany and Japan have experienced nominal GDP contractions since the second quarter of 2008. Nominal income deflation, as we have emphasized previously, and as Dr. Richebächer frequently pointed out, does not mix well with high debt loads. That combination can easily lead to an imploding economy.

Eastern European nations borrowed heavily from Western European banks, with a reported $1.5 trillion in bank loans outstanding to the region. Taking a page from the American model, much of this borrowing financed large trade deficits, so many Eastern European nations are finding themselves especially hamstrung as lenders have shut off the credit spigots. Hungary's retail sales, for example, are already contracting at a -2% year-over-year pace. Accordingly, formerly popular eurozone convergence trades are being abandoned en masse in such an environment

The breadth of policy responses to the financial and economic disruptions unfolding around the world is far too much to catalog, but it is worth considering some of the more dramatic fiscal and monetary moves set in motion since last month. Consistent with Pollock's Law, mentioned earlier, policymakers are pulling out all the stops.

On the fiscal side:

- China announced a $586 billion stimulus package (a quarter of which is, apparently, new programs)
- Russia announced a $200 billion package
- Japan announced a $51 billion package
- India announced a $49 billion package
- South Korea announced an $11 billion package
- The World Bank created a $100 billion fund to address the emerging market financial crisis.

On the monetary side:

- The Bank of England cut rates 150 basis points
- The Reserve Bank of Australia cut 75 basis points
- The Reserve Bank of India cut 75 basis points
- The ECB cut 50 basis points
- The People's Bank of China cut 25 basis points.

We can only assume such drastic measures are being rolled out so swiftly because the entire global production system has been undermined by the collapse of the new financial architecture. Until a working financial structure can be erected, and until asset prices are stabilized, it is likely to prove difficult for these policy initiatives to get any kind of serious traction.

REPOSITIONING THE TARP

In the prior letter, we argued that Treasury Secretary Paulson's TARP plan was always designed to recapitalize the banking system. We suggested to the extent the TARP's $700 billion war chest was used to purchase illiquid assets from financial institutions, true price discovery was never the objective. Rather, we argued that the Treasury would instead end up bidding up the prices of these illiquid assets over their prior marks on the books of banks and nonbank financial institutions.

By providing this hidden subsidy, financial institutions would be effectively recapitalized as their asset holdings got bid up by Treasury TARP purchases. The issue plaguing financial institutions was always one of capital adequacy and solvency, given the collapse in the values of various structured finance instruments they either held or had to take back on their balance sheets once it became difficult to refinance their structured investment vehicles.

We were right about the objective, but off on the method. Paulson's opening move with the TARP funds was to dole out $125 billion in exchange for preferred equity in nine financial institutions and is consistent with our prior speculations. The deals he cut, however, are very thin gruel compared with what private investors like Warren Buffett were able to secure, or similar deals cut in the United Kingdom.

Even the steelworker's union felt a letter of protest was warranted by Paulson's generosity. The following excerpt goes straight to the heart of the matter:

> *Mr. Secretary, this analysis is not rocket science. Just 20 days before Goldman announced that it would "accept" Treasury's investment, Warren Buffett invested $5 billion into Goldman Sachs and acquired the very same type of security — preferred stock — with the very same form of "upside" — warrants to purchase common stock. For some reason, however, per dollar invested, Mr. Buffett received*

> *at least seven and perhaps up to 14 times more warrants than Treasury did, and his warrants have more favorable terms. In addition, Mr. Buffett's preferred stock has a higher dividend rate and can only be bought away from him at a premium, while Treasury's investment of taxpayers' money pays a lower dividend and can be repurchased at par… If the result of our analysis is applied to the deals that you made at the other eight institutions… you paid $125 billion for securities that which a disinterested party would have paid $62.5 billion for. This means you gifted the other $62.5 billion to the shareholders of these nine institutions… If this deal is a model for how you plan to spend the whole $700 billion that you got from Congress, then it would appear that you intend to reward the institutions that have driven our nation, and, it now appears, the whole world, into its most serious economic crisis in 75 years, with a gift of $350 billion from the American taxpayers, who have watched 760,000 of their jobs disappear over just the past nine months.*

Early in November, much to the surprise of Congress, Paulson went one step further and indicated the TARP would no longer be considered a fund with the key objective of purchasing illiquid assets. Equity recapitalization would be the main priority, and another $89 billion has been allocated to bank capital injections following on the initial $125 disbursement mentioned. In November, American Express became a bank in order to be in line for TARP handouts, and is reportedly seeking a $3.5 billion infusion. Capital One has already been approved for a $3.6 billion capital infusion. Not surprisingly, the definition of a bank appears to be expanding in the wake of TARP's reorientation.

Paulson also announced he is exploring a new facility to back up the securitized credit card, student loan and auto loan markets in conjunction with the Fed. Car loan volumes have dropped 6% relative to a year ago, and the average interest rate on car loans has doubled since July. *The Washington Post* reports 37 of the 60 major lenders in the business of providing private student loans have abandoned the business.

A new liquidity facility would accept asset-backed securities in an attempt to revive these consumer markets that Paulson concluded have *"for all practical purposes, ground to a halt."* Private investors see little point in taking the risk of owning securitized household credit in a severe recession environment, so Paulson has determined that issuers of this credit will need to package it off to the Fed if they are going to be willing to step up consumer lending volumes again. With no market for securitized loans, the issuers have reached their own balance sheet constraints — hence, American Express' transformation into a bank.

For a portion of the TARP to be earmarked for a liquidity facility of this nature at the last minute suggests the collapse in retail sales has caught the Treasury's attention. Once again, however, we have the Fed stepping in as private investors have fled the shadow banking system. The shadow banking system, for all intents and purposes, is slowly but surely being nationalized through such measures. The new financial architecture is being replaced with what increasingly appears to be the Third National U.S. Bank, as the Fed steps into the business of intermediating private credit in more and more previously private credit channels.

The Treasury and the Fed, then, appear to be taking over from the marketplace to determine which firms will survive and which will sink. As the government appoints itself to select winners and losers, more and more firms in an expanding array of industries are likely to state their pleas for help. There is a slippery slope aspect to this process, as now even the auto industry is threatening imminent bankruptcy and lining up for handouts.

Even if Treasury is able to resist the pleas of various firms requesting subsidized capital injections, weaning firms from the public trough will also present a tremendous challenge once the economy begins to recover. As the USW described above, the cost of capital the Treasury has offered is at such a discount to the cost of capital in the marketplace that any CFO would prefer to keep it on the balance sheet for as long as possible.

In addition, public allocation of capital leaves all sort of room for fraud and mismanagement to arise. There does not appear to be much oversight once the preferred equity has been injected into private firms. In fact, the initial deals intentionally minimize control, influence and oversight by the Treasury. On first principles, Treasury's stance of

noninterference may be commendable, but as a practical matter, it would be naive to assume with billions of dollars at stake, there is no room for corruption to rear its ugly head.

We also must wonder aloud whether this principle of noninterference will be maintained with future TARP allocations. Treasury is quickly coming up against the limits of its initial allocation and will soon have to answer to Congress to get the final tranche. In mid-November, an interagency statement was issued by Fed, Treasury and FDIC officials mentioning, *"At this critical time, it is imperative that all banking organizations and their regulators work together to ensure that the needs of creditworthy borrowers are met."* Congress is bound to notice that banks have massively added nearly $250 billion to their cash reserves since Lehman went under. Congress is likely to be less polite about demanding new bank lending criteria as a quid pro quo in the next round of TARP purchases of preferred equity positions in financial firms. Eventually, we may see outright nationalization in order to force renewed lending by banks.

In mid-October, former Federal Reserve Chairman Paul Volcker argued in Singapore that the bailout measures were both *"distasteful"* and not consistent with a capitalist system. The former chairman had remarked during the Bear Stearns bailout that the Fed was operating on the very edge of its legal capacity, which was a polite way of saying in public that Chairman Bernanke had crossed the line. Volcker's parting shot in Singapore was also characteristically to the point. He noted, *"We will face a challenge in restoring a full private environment for finance."*

China's banking system, while evolving very rapidly, has always been an extension of its fiscal policy. Bank lending is often guided by political priorities, rather than purely economic motivations. In the wake of the current financial crisis, Volcker must sense the degree to which Western financial systems are slowly but surely moving more toward the Chinese model during this financial crisis. Given the gross misallocation of capital observed in China in order to meet political objectives, we can only hope the next Treasury secretary is fully aware of the risk of wandering down that road.

THE FED'S NEXT TARGET: MORTGAGE RATES

Chairman Bernanke asserted in his November 2002 speech that the Fed could decide to target longer-maturity interest rates in the event that the risk of price deflation became a clear and present danger. Having moved into a quantitative easing regime for all intents and purposes (discussed below), Bernanke could make good on his promise to target 10-year U.S. Treasury yields as part of his campaign against prospects of price deflation. Spreads between mortgage debt and Treasuries remain abnormally wide, even for GSE debt, so an effort by the Fed to knock 10-year Treasury yields lower would tend to produce lower mortgage rates as well. Bernanke may view targeting the 10-year Treasury, rather than mortgage rates explicitly, as a politically less controversial move.

Banks, weighing the costs and benefits of foreclosures versus debt renegotiation, have begun tackling the problem on their own. Bank of America has stated it has modified nearly a quarter of a million loans year to date, and Citigroup and JPMorgan are both engaging in similar campaigns. Given the estimated cost of foreclosing on a property approaches $50,000, this private market solution is to be lauded, but we suspect it will prove too little, too late.

More likely, the Fed, fresh from its success in the money market, will begin taking steps to try to pull mortgage rates down. Testifying before Congress, Treasury's Interim Assistant Secretary for Financial Stability Neel Kashkari — the 35-year-old from Goldman Sachs running the TARP operation — suggested getting mortgage rates down is now one of the highest policy priorities.

With Fannie and Freddie burning through their net worths, it will take explicit government backing of their debt before they will be in position to lend a significant hand in the likely war on mortgage rates. Freddie Mac, reporting a net loss of $25.3 billion, with a $5.7 billion provision for credit losses, has already requested a $13.8 billion infusion from the Treasury. However, in the meantime, Fannie and Freddie have been authorized to take a high-profile role in renegotiating mortgage loans 90 days late to reduce housing payments below a 38% of disposable income limit. The

so called Streamlined Modification Program would be rolled out first for the 58% of the mortgage market backed by the GSEs, but with the intent of providing a template for banks to get ahead of the mounting delinquencies and foreclosures.

Banks, however, were accumulating mortgage-backed securities to the tune of $30 billion in final two weeks of October, and it is more likely that if the banking system does expand its balance sheet over the next year, it will be through the accumulation of Treasury and agency securities, rather than through increased lending to the private sector. Yields on excess reserves are too low for the banks to rebuild profitability simply by parking cash reserves at the Fed for a 1% or less return. Banks will be inclined to reach for yield, but only on default-free securities. Presuming Treasury makes the guarantee of agency debt explicit, banks may have a significant role to play in getting mortgage rates down.

AS THE FED'S BALANCE SHEET GOES SUPERNOVA

Earlier this year, Dallas Fed President Richard Fisher frequently positioned himself as an ardent inflation fighter. His inflation hawk rhetoric has since been abandoned. By early November, Fisher had come to the following view: *"We've already started quantitative easing. The Fed's balance sheet may expand to $3 trillion by year's end, reflecting growth of various liquidity measures supporting banking institutions."* This is precisely the experiment Vince Reinhart refers to in the opening quote of this letter.

As we noted last week, the Federal Reserve's balance sheet has more than doubled in size since the Lehman bankruptcy. Fisher is suggesting a tripling before year-end. While the Fed was extremely wary of expanding its balance sheet for most of 2008, the scale of the financial disruption following the Lehman flameout has clearly altered its views.

"Quantitative easing" refers to the Fed's ability to flood the system with reserves by purchasing financial assets. The Fed credits the seller of assets with reserves and assumes ownership of the assets purchased. The Bank of Japan sought a similar quantitative easing path, with its balance sheet ballooning from 9% of GDP to 29% over the decade ending in 2004. The Fed is currently on a trajectory that will dwarf the Bank of Japan's efforts.

Much of the expansion of the Fed's balance sheet has come through lending to the banks through the discount window, or through the term auction facility, and it is these proceeds that appear to be piling up on bank balance sheets as excess reserves. Bank liquidity is improved, but that does little to improve bank lending as a sharp recession unfolds and existing loans are going sour.

More puzzling is the proliferation of currency swap lines that has contributed to the Fed's balance sheet explosion. Since the United States ran a persistent current account deficit, many countries are sitting on large dollar foreign currency reserves. We understand short-term dollar liabilities may have been issued by foreign financial firms trying to position dollar holdings in structured finance vehicles like CDOs and CLOs. We also understand some foreign nonfinancial firms may have preferred to issue liabilities in dollars in order to repay their debt in a currency they believed would continue to depreciate over time.

However, the provision of unlimited currency swap lines to the Bank of England, the ECB and the Bank of Japan suggests large dollar shortages have appeared in each of these nations. Even more troubling are the $30 billion swap lines with Brazil, Mexico, South Korea and Singapore. In each case, money is simply being created out of thin air on both sides of the currency swap, no doubt to paper over the fissures ripping through these various financial systems.

As the Fed proceeds to balloon its balance sheet, the monetary base (currency plus reserves) is surging. In several interpretations of the Great Depression, it was Roosevelt's decision to reprice gold that effectively helped the banking system get back on line. Knowing Governor Bernanke professes to be a student of the Great Depression, and knowing how he apologized to Milton Friedman for the Fed's policy mistakes during that painful episode, we have to wonder whether the chairman's decision to let the Fed's balance sheet rip is his modern variation on Roosevelt's move.

As it stands, the higher monetary aggregates are still slowing, as few of the reserves being created are making it out the door of the banks. So far, the grand monetary experiment, as Vince Reinhart deemed it in the opening quote, has failed to stabilize asset prices, and has only yielded lower spreads in money market instruments. We suspect that means the grand experiment has only just begun.

CONCLUSIONS

> *A whole variety of downward forces on the economy is studiously disregarded. The most important first consideration has to be that the bust of the housing bubble, with major negative implications for housing activity and consumer borrowing and spending, has barely started. Wealth effects have disappeared and with falling house prices — given tremendous price excesses — will turn substantially negative.*
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> — Dr. Kurt Richebächer, November 2006 letter

Two years ago, Dr. Richebächer understood the reversal of the housing boom significantly raised the threat of financial instability and economic disruption. Two years later, credit growth to the private sector has slammed into the wall. By midyear, the ability of asset-backed issuers to place or roll over liabilities was demolished as a run on the shadow banking system took root. The financial system is in more disarray than anytime since the Great Depression, and policymakers have determined that the degree of systemic risk is intolerable.

The opening moves have required repositioning the TARP to recapitalize key financial institutions and reduce or remove the perception of solvency risk around these core institutions. The Treasury is effectively replacing the private market in determining winners and losers. Given the terms on the preferred equity provided to these firms, the Treasury is also subsidizing the winners. Congress' expectation that these public equity injections will lead to renewed lending by these institutions is likely to be thwarted as banks brace for further losses on existing loans in the face of a harsh recession. Threats of lending quid pro quos, or even outright nationalization, are likely to arise when Treasury goes back to Congress for the next TARP allocation.

The Fed has moved swiftly to buttress, and in some cases replace, the money market in order to ensure working capital to nonfinancial firms remains available, to cushion the collapse of the shadow banking system and to act as a surrogate for the interbank lending market. The Fed has demonstrated some success in pulling money market yields down in both the asset-backed commercial paper market and the interbank lending market. In doing so, it has ballooned its own balance sheet and moved into a new policy regime similar to Japan's quantitative easing, except on a scale and with a speed we have never observed before.

Flooding the system with liquidity has so far failed to stabilize asset prices or income growth. At best, the free fall in asset prices has been cushioned, and equity prices in particular have already matched the deepest prior postwar plunges. But the collapse in consumer spending and production activity in the wake of the credit system seizing up after the Lehman bankruptcy is quite devastating. Nominal private income deflation is about to enter the U.S. economy, and it appears to have already entered in Japan and Germany. The threat to global growth is tangible enough that massive monetary and fiscal policy measures are already being launched abroad.

Dr. Richebächer was keenly aware of the price of allowing economic growth to depend on asset bubbles and prolonged private credit booms. The last credit boom surpassed even his imagination. Now the credit boom has visibly derailed, and households, firms and the private financial sector are all attempting to deleverage at the same time. The result is a releveraging of central bank and Treasury balance sheets on a scale usually reserved for wartime. As interest rates are muscled down, and winners and losers are chosen by the government, the distortions this will introduce to the production structure and to relative prices will no doubt remain with us for some time. We have the uncomfortable sense that policymakers are, in their rush to save the financial system, unwittingly veering off to adopt some variant of China's model of state-directed growth, in which banks serve as an extension of fiscal policy.